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INTEREST AND THE MATERIAL OF INSTRUCTION.

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IN general, there are three classes of people who discuss the subject of interest. There are those who tell us what interest is, what things are interesting, and what ought to be done with interest and interesting things. Such are they who write academic text-books. Then, there are those who tell us how to make things interesting, how to apply just the prescription that shall cure each case of bad lesson-material or inefficiency in the teacher. Such are they who give lessons in method. Finally, there are those who tell us what they have actually found children to be interested in, what the interests of different ages are, and what means we may employ to learn these things for ourselves. Such are they who are trying to apply the methods of inductive science to education. All three of these classes are needed, but perhaps the third is needed most of all. It is the rarest, the most recent, and has in itself the largest hope for men. This paper is written from the point of view of the third class, though it must needs begin with definitions.

1. *Nature of interest.*—Interest may be defined as the affectional side of attention. It is the index of the mind's attitude toward a thing. To say that a pupil is not interested is equivalent to saying that his attention has not been secured. Says Professor Titchener: "Affection and attention come together in consciousness; they are back and front, obverse and reverse, of the same state. It is only when we are feeling that we are attending; only when we are attending that we are feeling. We do not first feel and then attend; we feel and attend together."¹ The problem of interest, therefore, is at bottom a problem of attention as well. An inattentive pupil is an untaught and unteachable

¹ *A Primer of Psychology*, p. 82.

pupil, so long as he is inattentive, because his mind is not discharging the function most fundamental to the reception of knowledge. The uninterested pupil is also an untaught and unteachable pupil, not only because he is uninterested, but also because he is inattentive, and is, therefore, receiving nothing to which his mind can react.

This relation between interest and attention emphasizes the significance of the emotional state which the term "interest" describes. Psychologists are agreed that we attend to the things for which we have been organically and psychically prepared. On the organic side, what we attend to will depend upon the nervous mechanism that has been built up. On the psychical side, what we attend to will depend upon the instincts and elements of intelligence that are correlated with nervous states. To quote Professor Titchener further: "A thing which follows the line of our nervous tendencies is a thing-to-be-attended-to; at the same time, it is a thing-to-be-felt. But a felt thing is an interesting thing. Hence the thing that we attend to is from one point of view a thing that follows the lines of our tendencies, and from another point of view a thing that interests us."² It follows, therefore, that interest, fundamentally considered, is not so much a thing to be stimulated as a thing to be discovered and made use of. Those who tell us how to awaken interest by the use of some recipe have not the whole truth, but only a small fragment of it. The interest that can be stimulated upon occasion is but a secondary and more or less extrinsic thing. Deeper than such are the interests the wise educator aims to reach. These are the product of organic and psychical factors which determine a stage of life, and not merely characterize a momentary and fluctuating state of consciousness. They reveal tendencies which express themselves along given lines when appropriate conditions are supplied.

2. *Levels of interest.*—If, then, interest is an expression of organic and psychical tendencies, what a child is interested in will depend upon what the child *is*. There will be interests peculiar to age, sex, and general conditions of life. That is to say,

² *A Primer of Psychology*, p. 82

there will be interests characteristic of childhood, interests characteristic of boyhood and girlhood, and interests characteristic of adolescence. There will also be interests more or less peculiar to sex, especially during those years when sex-divergence is marked. Finally, there will be interests peculiar to race, parentage, and environment, both natural and artificial. The interests of each age, sex, and condition of life will reveal the corresponding needs of the children, and will suggest the means and methods by which these needs may be supplied.

Students of child-life everywhere recognize these facts. Numerous studies have been made to determine just what tendencies and interests awaken at the different stages of development. In fact, most of the work in child-study bears directly or indirectly upon this problem. Believing that whatever sheds any light upon the nature of the child will, in some degree, reveal the interests of the child, the best students of this science welcome facts from every department of knowledge relating to man. First of all, physical anthropology is made to contribute its results. Men like Vierordt, Roberts, Key, Bowditch, and Porter have measured and tested hundreds of thousands of children, of various nationalities and of all ages. They have established certain laws of development, as shown in stature, weight, rhythms of development, development by parts, accelerations in growth, compensations in growth, specific life-intensity, etc. Such studies bring to light the principal organic tendencies of children at different ages, and suggest certain fundamental interests that run parallel with these tendencies.³ Next, the facts of neurology are brought to bear upon the problem. Here it is found that there is a definite order of nervous development. According to Hughlings-Jackson, the cerebro-spinal system is composed of three levels, the lowest reaching functional maturity first, then the middle, and then the highest level. Flechsig has found that the medulation of nerve fibers, which indicates maturity, takes place in a definite order, beginning in the cord with the fibers that mediate reflex action, and continuing upward to the

³See BURK, "Growth of Children in Height and Weight," *American Journal of Psychology*, April, 1898.

bundles of association fibers in the cortex, which are concerned with the processes of self-conscious mind. From another point of view, abundant evidence is at hand to show that the order of nervous development is from the fundamental to the accessory. That is to say, the nerves controlling the more important organs of the body reach maturity first. The child can control its trunk before it can control its limbs, and it can control the larger movements of its limbs long before it can control the smaller and more delicate movements. It can hold its head erect and sit upright before it can walk; and it can walk before it can write or play upon a piano. This development of the nervous system by levels, or groups of elements, carries with it the necessity of a definite order of psychical development, as well as a definite order of interests implied in the latter.⁴

Next, following the clue to the development of mind supplied by evolutionary science, the psychology of lower forms of life and of primitive peoples is called upon for its contribution to the problem of children's interests. The life of feeling and intelligence is thus seen to have a definite order of development, just as has been found to be the case with physical life. Beginning with the simplest and most fundamental instincts and elements of intelligence, mind unfolds into the most highly derivative and complex. Starting with a food-consciousness, it ends with a consciousness of the infinite. Starting with purely egoistic instincts, it ends with sympathy, love, benevolence, morality, and religion. Starting with sense-impressions, it ends with the most intricate rational processes. Every stage of this long development reveals its own tendencies and interests, and implies the environment necessary. Now, if the child recapitulates this process of evolution, it may be expected to show certain more or less well marked parallelisms in its tendencies and interests. And such is admittedly the case. Thus, between the child of civilization and primitive man there are resemblances in the more fundamental instincts of nutrition, sex, fear, anger, etc.; in such intellectual tendencies as suggestibility,

⁴BURK, "From Fundamental to Accessory in the Development of the Nervous System," *Pedagogical Seminary*, October, 1898.

imitation, imagination, and reasoning from analogy; in music; in the use of fetishes, toys, etc.; in games and amusements; in the sense of justice, regard for law, and views of punishment; etc.

Finally, child-psychology is appealed to, more directly than is any other branch of inquiry, in the study of children's interests. Here numerous studies have been made. Binet was the first to attempt a direct inquiry into the interests of very young children. He found that such children are impressed but little with the visible aspect of things, that their greatest interest is in the use of things, and that their ideas possess but few abstract characteristics. Professor Barnes, formerly of Stanford University, California, and his students have made a series of studies⁵ in children's interests. Professor Barnes, from an investigation of several thousand children between six and fifteen years of age, confirmed Binet's results for young children, but found the interest in the use of things to decrease with age, and interest in the structure and substance of things to increase. Mrs. Barnes, studying the historic sense of children from eight to sixteen years of age, found that the younger children were mainly interested in strong lines of action. Later there developed an interest in persons and places; and still later, in causes. The boys were less precocious than the girls in showing an interest in causes. Miss Vostrovsky, studying the elements of interest in children's stories, found that the chief interest centered in action; then in names; then in speech; then in appearances; then in place and time; then in dress and æsthetic adornment; then in sentiment; and, last of all, in moral qualities. These studies are typical of a large number and variety. Professor Barnes' conclusion is that "children's interests develop according to pretty definite laws, which can be determined and used as a basis on which to build educational activity." At Clark University, President G. Stanley Hall and his students have been working at this problem for years. Studies have been made of most of the instincts and elements of intelligence, at various stages of the child's life, and in both sexes. Such are the studies of anger; dolls; toys and playthings; folk-lore among children; sense of

⁵ *Studies in Education*, Stanford University, California.

self; fears; automatisms; feeling for inanimate nature; feeling for animate nature; appetites and foods; affections; moral and religious experiences; moral defects and perversions; thoughts and feelings about old age, death, etc.; beginnings of reading and writing; school reading matter; early musical manifestations; fancy, imagination, etc.; suggestion and imitation; religious experience; puzzle interests; etc. Some of these studies have been published;⁶ others have not been completed. Whatever the academic verdict may be regarding these efforts to get at the nature, contents, and interests of children's minds, they are unquestionably the most original, and the most thought-provoking, studies in existence along psychological and pedagogical lines.

3. *Interest and culture-material.*—All of these departments of inquiry, whether anthropological, neurological, or psychological, whose results shed direct or indirect light upon the problem of interest, have received the test of experience and are recognized methods of inductive research. They are yielding material that is absolutely new in the history of thought. They are already profoundly affecting the ideals and methods of secular education. The final verdict cannot be given as to the validity of their conclusions, but the probability is that these conclusions have sufficient truth in them to effect far-reaching changes in existing educational curricula. They may be expected to do here what inductive science has done elsewhere, in placing human knowledge and effort upon a basis of certainty. Nowhere is this likely to be so immediately and effectively true as in the choice of the culture-material of education. Already many leaders in public-school work are feeling the influence of this new point of view and these new and suggestive, not to say disturbing, facts. They are beginning to ask: When shall this, that, or the other subject be introduced into the schools? Are there any subjects in the curricula that have no place there at all? Are there subjects, not now recognized as necessary in public-school education, that ought to be introduced? It is significant that such questions should even come to be asked, and that, too, so often, and in such high and influential circles. It can mean but one

⁶ *Pedagogical Seminary*, Vols. I-VI.

thing, namely, that the *a priori* and logical choice of culture-material is going to receive the severest scrutiny it has yet encountered, and that a culture-material based upon inductive knowledge of children's interests and needs is going to be a most vigorous claimant for recognition.

What, now, shall be the position of religious educators? Is it possible that the culture-material of religion, which has had the same history as that of secular knowledge, can escape the influence of the radical changes going on in the public schools and colleges? When we have received from our fathers the Bible as a text-book of religious instruction, and when we have interpreted its truths to our children, we have done well. But in doing so we have done no more than if we were to receive the mass of secular culture-material which our fathers have handed down to us, and then spend our days in expounding its truths, without regard to the order in which such truths are presented. In the opinion of the writer, religious educators should fearlessly, yet reverently, ally themselves with this new movement in education. What secular educators are doing in the direction of a more rational culture-material ought to be done by religious educators. Before the gradation of Sunday-school work can mean much, or before any other really effective advance can be made, the material of instruction will have to be selected from definitely ascertained knowledge as to what children *are*, instead of from the mass of conflicting opinions as to what they *ought to be*. If it is true that interest is an index of what a child is, the very first step toward a rational culture-material for the Sunday school is to find out what the child, at different stages of its development, is interested in. A practical effort in this direction would be to overhaul the material of the Bible from the standpoint of children's interests in the Bible. Undoubtedly, many people are thinking along this line, and there are occasional attempts to get out lessons based upon more or less extensive individual observations. But what is needed is an induction from the widest possible range of observations and the most intelligently obtained data bearing upon the problem. This can only be accomplished through two agencies: (1) the best

Sunday-school teachers throughout the United States, observing, questioning, and testing the children of their classes for several months, to determine what elements of the Bible appeal most to them; and (2) some man, or set of men, who shall take the results of these teachers' observations, questions, and tests, and sift, combine, and interpret them in the light of the best scientific information. This work by the teachers could be uniform, being guided by a syllabus of questions, and could be made representative of many thousand children, in every section of the country, and of every age and condition of life. The data resulting from such a work could be made to yield, at the hands of a sufficiently expert scholar, facts and suggestions of the very greatest value. They would go far toward answering the following questions: (1) What is the relative value of the Old and the New Testament, for purposes of instruction, at different ages? (2) What is the relative value of different books or chapters, for purposes of instruction, at different ages? For instance, the poetic books, the wisdom books, the prophetic books, the gospel books, the doctrinal books, etc. (3) What is the value of Bible scenes, Bible stories, Bible characters, etc., for purposes of instruction, at different ages; and what particular scenes, stories, or characters are apt to yield the best results? (4) At what age does an interest in the person of Christ begin to appear, and what is the history of the growth of such interest? (5) What aspects of his teachings appeal to different grades of intelligence and different levels of feeling?

Such an inquiry into children's interests in the Bible carries with it no implication that the child shall decide for himself *what* he is to be taught. The implication is rather that he shall be allowed to indicate *when* he is to be taught it. That is to say, given the Bible as the religious text-book, what is the order in which its contents appeal to the unfolding soul of the child? Nor is it supposed that such an inquiry would be absolutely conclusive as to even its own claims. Many such studies might be necessary. But it would be in the right direction. It would be a recognition of a clearly established principle of education, and it would employ methods that have been found legitimate and fruitful in other departments of knowledge.